LESSONS OF THE 1999 ABOLITION OF INTRA-EU DUTY FREE SALES FOR EASTERN EUROPEAN EU CANDIDATES

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Abstract

At the end of June 1999 the intra-EU duty free shopping was abolished among the fifteen member nations. The opponents of this resolution argued that such a tax-free sales sector created jobs EU-wide and hardly reduced the value added and excise tax revenue of individual countries. In their opinion, the duty free trade not only contributed to the reduction of the travel fare within the EU but also could be characterised as a supplement to the normal retail trade for some products. Such 'old' ideas are increasingly gaining popularity in some Eastern European EU candidates in the context of the preparation process for the introduction of the Single Market and the EU membership in the near future. This study primarily shows that the arguments mentioned above were neither significant enough nor conclusive to maintain the intra-EU duty free shopping. Furthermore, the abolition of such tax free sales was approved in the EU in order to ensure the allocation efficiency of the VAT and excise tax system within a single market. Several arguments against the intra-EU tax free shopping examined in the study provide some helpful policy orientations for EU membership candidates.

Keywords: duty free shopping, EU single market, value added and excise tax harmonisation, eastern european candidates.

JEL Classification: F10, F15, F18, E62, P20.

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Introduction

The introduction of EU Single Market in 1993 primarily aimed at the elimination of physical, technical and tax impediments among the Member States which used to interfere with the free movement of goods, services, capital and people. The harmonisation of VAT and excise tax rates also progressed at the same time. In spite of the abolition of border controls, the so-called destination principle[1] still dominates in the EU, particularly concerning the application of VAT and excise tax on the commodity trade between firms in the Member States. The transitional arrangement existing since the beginning of 1993 is planned to be replaced by the so-called origin principle[2] with the cross-border pre-tax refund system.

The origin principle has largely been applied for the cross-border shopping of private households in the EU. For instance, consumers pay VAT on their shopping in the origin country. EU citizens have been carrying out this type of trade without any quota restrictions since 1993. Since the intra-EU (VAT and excise) tax free shopping (of travellers by ship and aircraft) are also part of such types of cross-border trade, it was decided to abolish such a special tax privilege within the EU. In the context of the Single Market, there should be no tax exemption provided for a minority of EU citizens (i.e. travellers and people living next to a border) so that this small group would no longer be better off with respect to the EU-wide cross-border sales taxation. The abolition of intra-EU duty free was controversial and accompanied by a vigorous and well-financed lobbying campaign by the duty free industry (Christiansen & Smith, 2001). In order to provide a mid-term adjustment possibility for the strongly affected firms and industries in the individual member countries, the intra-EU duty free shopping was maintained until 30 June 1999.

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[1] This principle means that manufactures are taxed in the country in which they are consumed.

[2] According to this principle goods are taxed in the country where they are produced.

The opponents of the abolition of intra-EU duty free shopping argued that

- such a tax-free sale sector was able to create jobs EU-wide and hardly reduced the value added and excise tax revenue of individual countries, and
- the duty free trade not only contributed to the reduction of the travel fees within the EU — the so-called transport subsidy hypothesis[3] — but also should be characterised as a supplement to the normal retail trade for some specific products.

For example, such an EU-wide policy action would lead to a drastic reduction of sales for ferry operators who would be, in turn, forced to increase travel fares, to reduce board services and/or to close some less attractive travel routes. Triggered in particular by the higher fares, the number of passengers and tourists would decrease and, at the same time, the income for ferry operators would be significantly further reduced. As a consequence, investment in new ships would take place in a limited way, employment on board and at harbours as well as in the field of tourism would sink (ISL & Prognos, 1997).

Duty free proponents are increasingly gaining popularity in some Eastern European EU candidate countries in the context of preparation for the introduction of the Single Market and EU membership (Kerem, 2002). This study primarily shows that the arguments mentioned above were neither significant enough nor conclusive to maintain the intra-EU duty free shopping. Furthermore, the abolition of such tax free sales was approved in the EU in order to ensure the allocation efficiency of the VAT and excise tax system within a single market. Several aspects against the intra-EU tax free shopping examined in the study provide some helpful policy orientations for those candidates who are currently slated for EU membership.

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[3] "There are two ways in which the duty free shopping can serve as a transport subsidy. The passengers get cheaper transport because of what they save by joint purchase of transport and duty free goods, or the services become more profitable for the suppliers of transport as they now make a profit from the sale of duty free goods. The tax saving is somehow shared by passengers and transport companies and expanding the services becomes lucrative (Christiansen & Smith, 2001, p. 21)."

Allocation Neutrality of VAT and Excise Tax System in the Single Market vs. Intra-EU Duty Free Shopping Rule

Regarding the optimal taxation of intra-EU trade in a single market, the allocation of goods and services among the Member States should not ideally be affected at all by the different national indirect tax systems. In other words, the VAT and excise tax system should be constructed EU-wide in such a way that the so-called allocation neutrality is guaranteed in a free market system. According to the standard economic theory, this is the case, for example, when in spite of the introduction of taxes the allocation of production factors and consumer goods, and the optimal co-ordination of the two (production and consumption) areas (global optimum) in the individual countries and also among the number of investigated countries remain undistorted. A cross-border global optimum is reached, when the marginal rate of substitution (*MRS*) of consumer goods in a country corresponds to the marginal rate of transformation (*MRT*) of production factors in the same country, and, at the same time, when the same relation (between *MRS* and *MRT*) prevails also among the countries. In the case of two countries j ($j = D, F$) and i-goods ($m, n \in i; m \neq n$) with prices p_m^j, p_n^j, the optimal global allocation exists only when the following condition is satisfied:

$$(1) \qquad MRS_{m,n}^{D} = \frac{p_n^D}{p_m^D} = MRS_{m,n}^{F} = \frac{p_n^F}{p_m^F} .$$

The neutrality character of individual tax schemes for cross-border trade can be easily illustrated in the context of a simple static model, in which the domestic country (D) imposes tax on domestic sales of goods at the rate t_D^D, while imports from the foreign country (F) are taxed by a rate of t_M^D and exports to F by t_X^D. The corresponding tax rates for the foreign country (F) are t_F^F, t_M^F, t_X^F (Genser, 1994). When national markets for goods are integrated, consumers in country D have an opportunity to purchase either a domestically produced good i at a price of $p_i^D(1 + t_D^D)$ (net producer price plus VAT and/or excise tax) or the same good from the foreign country imported by domestic wholesalers or retailers, whereas gross prices encompass both VAT and/or excise taxes and imputation rate for the export taxes a^D. In addition, it is further assumed at this stage that consumers are unable to directly import goods from abroad (Genser, 1994; Ratzinger, 1998). Therefore, the consumers have to pay for imported goods a price of $p_i^F \{ 1 + (1 - a^D)\ t_X^F + t_M^D \}$.

Under the economic situation shown above, the following condition is satisfied for the domestic consumers in the arbitrage equilibrium

$$(2) \qquad p_i^D (1 + t_D^D) = p_i^F \{ 1 + (1 - a^D)\ t_X^F + t_M^D \}$$

and for the foreign consumers from country F applies

$$(3) \qquad p_i^F (1 + t_F^F) = p_i^D \{ 1 + (1 - a^F)\ t_X^D + t_M^F \}.$$

where a^D and a^F $(0 \le a^j \le 1)$, $j = D, F$, are the imputation rates for the "export" taxes which are imposed on the goods at the time of delivery from the origin country to the destination one.

After the elimination of producer prices (by solving (2) to p_i^D and setting in (3))[4] one can obtain the so-called consistence condition for the cross-border equalisation of consumer prices:

$$(4) \qquad (1 + t_D^D)\ (1 + t_F^F) = \{ 1 + (1 - a^F)\ t_X^D + t_M^F \} \{ 1 + (1 - a^D)\ t_X^F + t_M^D \}$$

If equation (4) is satisfied, all goods will be taxed equally within the national boundary and consequently the relative consumer prices of goods for both countries will also be identical. Such a condition exists in all institutional settings cases, namely with:

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[4] From equation (2): $p_i^D = \dfrac{p_i^F \{ 1 + (1 - a^D) t_X^F + t_M^D \}}{(1 + t_D^D)}$

- the zero-rated intra-EU exports as was the case prior to the introduction of Single Market in 1993 and the transitional system existing in the EU since the beginning of 1993 ($t_X^D = 0,\ t_X^F = 0,\ t_M^D = t_D^D,\ t_M^F = t_F^F$), as well as
- the realisation of the planned origin principle with the full cross-border pre-tax refund system $(t_D^D = t_M^D = t_X^D,\ t_F^F = t_M^F = t_X^F,\ a^D = 1,\ a^F = 1)$.

The model analyses shown above do not consider the case that the origin principle is fully implemented in the EU Single Market for final consumers. When the origin principle applies, they can — not only purchase foreign goods imported by domestic wholesalers or retailers in the domestic market but also — directly import goods from foreign suppliers without any quota limits. In other words, consumers in both countries can carry out the so-called cross-border shopping. Under the additional consideration of private direct imports the arbitrage equilibrium condition for the domestic consumers changes in the following way:

$$(5)\qquad p_i^D(1+t_D^D) = p_i^F \min\left\{\, 1+t_F^F ; 1+(1-a^D)t_X^F + t_M^D \,\right\}$$

and the following equation applies for the foreign consumers

$$(6)\qquad p_i^F(1+t_F^F) = p_i^D \min\left\{\, 1+t_D^D ; 1+(1-a^F)t_X^D + t_M^F \,\right\}$$

The new consistence condition for the cross-border equalisation of consumer prices after the abolition of producer prices ((5)/(6)) is:

$$(7)\quad (1+t_D^D)(1+t_F^F) = \min\left\{\, 1+t_D^D ; 1+(1-a^F)t_X^D + t_M^F \,\right\}\ \min\left\{\, 1+t_F^F ; 1+(1-a^D)t_X^F + t_M^D \,\right\}.$$

Equation (7) proves that the neutrality condition is satisfied both in the transitional system and also in the case of applying the origin principle, only if $t_D^D = t_F^F$ and they are min-terms. When the direct imports are allowed for final consumers, as it is the case in the Single Market, this fact suggests that an additional effort for the harmonisation of tax rates is required in a system with the origin principle in order to safeguard the allocation neutrality (Genser, Haufler & Sørensen, 1995; Krause-Junk, 1990; Sinn, 1990). Although tax rates are assumed to be identical in the EU, a clearing mechanism is still necessary to rectify the changes in the national tax revenues caused by the movement from the destination to the origin principle, as long as the intra-EU trade volumes among the Member States remain different (Nam, Parsche & Reichl, 2000).[5]

Duty free shopping does not fit to the Single Market idea. A single market with tax free cross-shopping possibilities for a limited number of final consumers no longer guarantees the allocation neutrality. More precisely, the direct imports of goods made by the final consumers over the national borders are not taxed at all if these take place in a form of intra-EU duty free shopping made by travellers on board (ships and aircraft). Furthermore, such a favourable tax scheme has not usually been provided for the direct imports via cars and railways.

In reality, duty free shopping is limited to a narrow variety of goods and, at the same time, obliged to certain quotas and value restrictions.[6] In addition, such shopping activity usually has huge transaction costs. Duty free purchases are acknowledged as joint purchases of two goods, the duty free commodity and the travel, because the former can only be bought by people who make the qualifying journey.[7] Nevertheless, duty free shopping causes distortion of competition. For instance, it provides the duty free traders a considerable scope for determining their prices and yielding profits. It is a wide spread opinion that duty free sales put the normal retail sector at a disadvantage which is more

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5 To a large extent the implementation of the clearing system is disturbed by the different size of VAT evasion in the individual EU Member States (Nam, Parsche & Schaden, 2001).

6 Prior to 1 July 1999, the maximum quantities of duty free goods one was able to purchase abroad to bring to the UK were, for example: (1) tobacco products - 200 cigarettes, or 100 cigarillos, or 50 cigars, or 250 gr. of tobacco, (2) alcohol - 2 litres of still table wine, 1 litre of spirits or strong liquors over 22% volume, (3) perfume and toilet water - 60c/cml of perfume, 250 c/cml of toilet water, (4) all other goods - 75 British pounds worth if entering the UK from another EU Member States, 145 British pounds worth if entering the UK from outside the EU (Seely, 1999).

7 "This feature potentially has implications for both consumer and producer behaviour. Duty free is liable to distort consumer choices, both towards the goods typically sold duty free, and towards excessive travel which has to be purchased jointly with duty free. Faced with consumers making joint purchasing decisions, there will be cases where producer decisions about pricing and other aspects of supply of the two commodities are also interdependent" (Christiansen & Smith, 2001, p. 4).

pronounced if the quantity control and the value restriction of the duty free trades remain less strict.

Tax free shopping can also distort an optimal taxation system. Suppose that the government of a country is annually in need of a certain level of tax revenues (T) in order to fully cover its expenditures and that, due to the duty free shopping, the tax base (B) in the same country is reduced by the amount of B_{DF}. If the fiscal effect of duty free shopping is significant, ceteris paribus, a higher tax rate t^* should be set to yield T. In the absence of the duty free sales, however, a lower tax rate t would be sufficient for this purpose. This theoretical consideration shows that a larger share of consumers in the same country who do not have the opportunity to buy duty free may additionally suffer from the higher tax burden caused by the tax free trade. This can be expressed in technical terms:

(8) $B\,t = T$

(9) $(B - B_{DF})t^* = T$

(10) $(B - B_{DF})t^* = Bt$

Hence: $t^* > t$, since $(B - B_{DF}) < B$.

Since the macroeconomic significance of duty free trade (measured by *total duty free sales / total GDP*) is relatively small (Table 1), this effect seems to be negligible.

Macroeconomic Significance and Structure of Intra-EU Duty Free Sales in 1995

The total sum of (intra- and extra-EU) duty free sales in the EU continuously increased from 3.4 billion ECU in 1991 and reached 5.4 billion ECU in 1995, which comprised approximately 53% of the duty free sales made on board ships and aircraft, at airports and harbours all over the world. In particular, the share of intra-EU duty free sales amounted to around 70% (i.e. 3.7 billion ECU) of the total EU duty free sales in 1995 (Table 1). In this context many tended to argue, in particular prior to the abolition of the intra-EU duty free shopping, that such a type of cross-border sales reached an economic scale in the EU which could not be neglected when implementing the EU-wide economic policy decision. Yet, a systematic comparison with macroeconomic aggregates like GDP, private consumption and total exports in 1995 proved that the economic significance of the intra-EU duty free shopping was rather marginal not only at the EU (Table 2) but also at the national level for Ireland — the founder of the duty free shopping in 1951 — and the UK, economies which were traditionally seen as being more strongly affected by such tax free sales than in other EU nations before 1999 (Table 3 and 4).

Table 1 Total sales of products at all EU duty free outlets in 1995

Products	Intra-EU duty free sales (million ECU)	Extra-EU duty free sales (million ECU)	Total duty free sales at all EU duty free outlets (million ECU)	Intra-EU duty free sales of an item as % of total duty free sales of this item	Intra-EU duty free sales of an item as % of Total intra-EU duty free sales
Liquor	910	321	1231	73.9%	25.4%
Tobacco	756	275	1031	73.3%	21.1%
Fragrances	813	474	1287	63.2%	22.7%
Other items	1102	519	1621	68.0%	30.8%
Total	3581	1589	5170	69.3%	

Source: NERA (1997), The Impact on UK Public Finance of the Abolition of Intra-EU Duty and Tax Free, London; Calculation of the Ifo Institute for Economic Research, Munich.

Table 2 Macroeconomic significance of duty free shopping in the EU (1995)

Indicators	
• (Intra- and extra-EU) duty free sales per capita	14.0 ECU
• Intra-EU duty free sales per capita	9.7 ECU
• GDP per capita	17377 ECU
• Private consumption per capita	10669 ECU
• Total duty free sales / total GDP	0.08%
• Total duty free sales / total exports of goods and services	0.28%
• Intra-EU duty free sales / total intra-EU exports of goods and services	0.37%
• Total duty free sales / total private consumption	0.13%
• Intra-EU duty free sales / total private consumption	0.09%
Basic macroeconomic data for EUR 15 (1995) used for the calculation	
• Population (in 1000) = 372161	
• GDP at current market prices (billion ECU) = 6466.9	
• Private consumption at current prices (% of GDP at market prices) = 61.4%	
• Exports of goods and services at current prices (% of GDP at market prices) = 28.8%	
• Intra-EU exports of goods and services at current prices (% of GDP at market prices) = 15.0%	

Source: NERA (1997), The Impact on UK Public Finance of the Abolition of Intra-EU Duty and Tax Free, London; European Commission (1995), 1995 Broad Economic Policy and Guidelines, European Economy No. 60, Brussels; Calculation of the Ifo Institute for Economic Research, Munich.

Table 3 Macroeconomic significance of duty free shopping for the UK's economy (1995)

Indicators	
• (Intra- and extra-EU) duty free sales per capita	21,5 ECU
• Intra-EU duty free sales per capita	14,1 ECU
• GDP per capita	14557 ECU
• Private consumption per capita	9229 ECU
• Total duty free sales / total GDP	0.15%
• Total duty free sales / total exports of goods and services	0.54%
• Intra-EU duty free sales / total intra-EU exports of goods and services	0.88%
• Total duty free sales / total private consumption	0.23%
• Intra-EU duty free sales / total private consumption	0.15%
Basic macroeconomic data for the UK (1995) used for the calculation	
• Population (in 1000) = 58,590	
• GDP at current market prices (billion ECU) = 852.9	
• Private consumption at current prices (% of GDP at market prices) = 63.4%	
• Exports of goods and services at current prices (% of GDP at market prices) = 27.4%	
• Intra-EU exports of goods and services at current prices (% of GDP at market prices) = 11.1%	

Source: NERA (1997), The Impact on UK Public Finance of the Abolition of Intra-EU Duty and Tax Free, London; European Commission (1995), 1995 Broad Economic Policy and Guidelines, European Economy No. 60, Brussels; Calculation of the Ifo Institute for Economic Research, Munich.

Table 4 **Macroeconomic significance of intra-EU duty free sales for Irish economy (1995)**

Indicators	
• Intra-EU duty free sales per capita	29.3 ECU
• GDP per capita	13251 ECU
• Private consumption per capita	7275 ECU
• Intra-EU duty free sales / total intra-EU exports of goods and services	0.48%
• Intra-EU duty free sales / total private consumption	0.40%

Basic macroeconomic data for Ireland (1995) used for the calculation
- Population (in 1000) = 3577
- GDP at current market prices (billion ECU) = 47.4
- Private consumption at current prices (% of GDP at market prices) = 54.9%
- Intra-EU exports of goods and services at current prices (% of GDP at market prices) = 15.0%

Source: Tansey Webster & Associates Economic Consultants (1997), The Proposed Abolition of Intra EU Duty and Tax Free Sales in 1999: The Economic Consequences for Ireland, Dublin; European Commission (1995), 1995 Broad Economic Policy Guidelines, European Economy No. 60, Brussels; Calculation and estimation of the Ifo Institute for Economic Research, Munich.

The classification of the total (i.e. intra- and extra-EU) duty free sales according to the product groups shows that the EU-travellers spent the most significant sum of money for purchasing alcohol products and fragrances (ca. 1.3 billion ECU) in 1995, followed by tobacco (1.0 billion ECU).[8] Regarding the intra-EU sales record, liquor achieved the highest in the sales ranking at the same year, while fragrances positioned at the second. Moreover, it should also be taken into account that the item miscellaneous goods (other items) comprising watches, cameras, video recorders, toys, etc. achieved also a remarkable sales performance in 1995 (Table 1). The similar sales ranking prevailed also on the national level in the UK and Ireland in 1995: approximately 28% of total duty free sales were made for liquor, 25% for tobacco, 24% for fragrances in the UK and 23% for other items (Table 5), whilst 31% of the total sales were assigned to the first, 27% for the second, 16% for the third item and 26% for the rest in Ireland (Table 6).

[8] The EU accounted for over 45% of the world duty free tobacco sales in 1996 (Joossens, 1999).

Table 5 Duty free sales in the UK classified into different products and outlets (1995)

Outlets	Products	Intra-EU sales (million ECU)	Extra-EU sales (million ECU)	Total duty free sales (million ECU)	Intra-EU duty free sales as % of total duty free sales
Airports	Alcohol	91	91	181	50%
	Tobacco	77	50	127	61%
	Fragrances	98	100	198	49%
	Other items	76	119	195	39%
	Total	342	359	702	49%
Aircraft	Alcohol	21	13	35	61%
	Tobacco	19	15	34	57%
	Fragrances	29	23	53	56%
	Other items	27	23	48	53%
	Total	96	74	169	56%
Ships	Alcohol	117		117	100%
	Tobacco	116		116	100%
	Fragrances	69		69	100%
	Other items	88		88	100%
	Total	391		391	100%
All outlets	Alcohol	230	104	334	69%
	Tobacco	211	64	276	77%
	Fragrances	196	125	321	61%
	Other items	191	140	332	58%
	Total	829	433	1262	66%

Source: NERA (1997), The Impact on UK Public Finance of the Abolition of Intra-EU Duty and Tax Free, London; Calculation of the Ifo Institute for Economic Research, Munich.

Table 6 Intra-EU duty free sales in Ireland classified into products and operator types (million ECU in 1995)

Product	Airport	Airline	Ferry	All outlets	Share of total (%)
Alcohol	20.3	2.9	9.4	32.5	31.0%
Cigarettes & tobacco	16.6	4.3	7.7	28.6	27.3%
Perfumes & cosmetics	12.3	2.2	2.1	16.6	15.8%
Gifts incl. jewellery, china, watches	11.6	2.7	3.8	18.1	17.3%
Other types of souvenirs	6.3	1.0	1.7	9.0	8.6%
Total sales	67.1	13.0	24.8	104.9	100%
Total sales / sum of all outlets	64%	12.4%	23.6%	100%	

Source: Tansey Webster & Associates Economic Consultants (1997), The Proposed Abolition of Intra EU Duty and Tax Free Sales in 1999: The Economic Consequences for Ireland, Dublin; Calculation and estimation of the Ifo Institute for Economic Research, Munich.

In general, European airports were the most important duty free outlets in the investigated year, followed by on board sales in ships and aircraft. This ranking also applied for the intra-EU tax free sales for Ireland in the same year: around 64% of total sales were made at airports, compared to 24% and 12% on board ships and airlines, respectively (Table 6). For the UK, however, the share of the intra-EU duty free shopping made on ferry was, at 47%, much higher than dealings made at airports (41%) and on board of aircraft (12%) in 1995. By contrast, more than 82% of extra-EU tax free sales took place at airports in the UK.

Examination of Major Economic Arguments against the Abolition of the Intra-EU Duty Free Shopping

As mentioned above, the opponents of abolishing the intra-EU duty free argued that such a policy action would lead to a reduction of sales for ferry and airline operators, who would then consequently adopt the strategy of increasing travel fares, further causing the reduction of the number of passengers and tourists.[9] This would again contribute to the reduction of income for those transport service providers, which would force them to carry out the organisational restructuring and the job replacement. According to the initial estimation, approximately 140,000 jobs were at risk from the abolition of intra-EU duty free caused by the reduction of 30% to 70% and 20% to 60% of total sales for varied ferry routes and at EU airports, respectively (Christiansen & Smith, 2001; IDFC & AFCOHT, 1997; Patterson & Boetius, 1997).

Quantifying the negative economic effects of the abolition of the intra-EU duty free sales has been difficult due in many cases to the lack of relevant data. Despite this fact a number of studies have been carried out to highlight the disadvantages related to this 1999 EU-wide resolution mainly dealing with the employment aspect.

[9] For example, a decrease in total passenger volume was anticipated in the Baltic Area from 96 million in 1997 to 75 million in 2005. This forecast includes the effect led by the abolition of intra-EU duty free sales. If duty free had continued, the expected passenger numbers would be ca. 6% higher (Centre for Maritime Studies, et al., 1999).

- The so-called AKF study (1996) primarily examined the impact of price increases on alcohol products and cigarettes on consumer behaviour and market demand in Denmark. Under the first assumption that Danish travellers would carry out the substituted purchases exclusively from Danish retailers and the intra-EU duty free possibility would fully disappear for foreigners, this study expected a mid-term replacement of 3,500 employees in the country. Under the second assumption that all Danish travellers would make their substituted purchases entirely in other EU countries, the job loss would amount to 8,000.
- According to the calculation made by ISL & Prognose (1997), German ferry operators derived around 33% to 75% of their total income from the intra-EU duty free sales on board at the beginning of the 1990s. The abolition of such a cross-border sales type would lead to fare increases of 30% and total employment (directly and indirectly) in this industry would probably decrease from ca. 5,700 to 2,600.
- The negative effects of the abolition were also assessed to be significant for European airline operators and airports, as approximately 30,000 jobs were said to be involved in the intra-EU duty free shopping (The Portland Group, 1997). According to a survey carried out by Cranfield University (1997), the abolition of intra-EU duty free shopping would decrease the total profit of the duty free business of some large airports by 56% to 86%. Around 3,000 employees engaged in the retail sectors at airports would lose their job, whereas the airport usage charges would increase by 20% on average. Furthermore, an increase of air fares by 40% was anticipated in the EU (The Portland Group, 1997).
- Doubtlessly the suppliers of alcohol products and tobacco would be particularly affected by the abolition of the intra-EU duty free shopping. According to a study made by Pieda Plc. (1997), the cross-border tax free consumption of Scottish whisky was concentrated on the northern EU Member States like France, the Benelux countries, Germany, Scandinavian countries and the UK. Due to the rather low excise taxes on liquor, duty free shopping has not played a significant role in southern European countries like Italy, Greece, Portugal and Spain (see Table a1 in Appendix). In 1991 more than 71,000 people were directly and indirectly active in the related fields of producing whisky in the EU, of which ca. 66% were engaged in Scot-

land. It was said that the abolition of the intra-EU duty free sales in 1999 would lead to the EU-wide reduction of whisky sales by 1.5% annually, which would consequently cause the loss of approximately 1,000 jobs in the EU.

- Several studies have attempted to measure the anticipated fiscal effects of the abolition of intra-EU duty free sales. In this context the size of the net tax revenues was calculated, obtained from the extra revenues from the wage tax and social welfare contributions yielded by the additional employment in the intra-EU duty free sector, subtracted by the tax losses caused by the existence of such duty free sales type. The ISL & Prognos study (1997) mentioned above suggested that the maximal increase of the annual VAT and excise tax revenues caused by the abolition would amount to approximately 45 million ECU in the German ferry industry. On the other hand, the loss of income tax revenues and social insurance contributions induced by the loss of around 3,000 jobs would reach ca. 27 million ECU, while an extra sum of 30 million ECU would be spend on unemployment benefits and assistance. The abolition of the intra-EU tax free shopping would have a negative fiscal effect in this case. The NERA study (1997) assumed that in the UK only 15% to 25% of the intra-EU duty free sales of alcohol products and tobacco would take place after 1999 in the form of normal retail sales be subject to VAT and excise tax. Under this condition the effective increase of annual tax revenues would amount to ca. 145 million ECU. On the other hand, the loss of corporate tax revenues would amount to 138 million ECU, induced by the bankruptcy of duty free shops, in addition to the revenue loss from wage tax and social insurance contributions of ca. 30 million ECU caused by the 1,500 job losses. Yet the (negative) net fiscal effect appeared to be rather moderate (approximately 23 million ECU) for the country.

According to Christiansen & Smith (2001), there have been a number of noticeable changes in duty free markets. “Sales on board aircraft travelling within the EU of goods previously sold duty free have declined sharply, although some airlines still offer such goods on a duty paid basis. A variety of changes have taken place in airports. Some airport shops still try to maintain prices at pre-abolition levels, but have to record that the destinations of the buyers as sales to passengers for EU destinations are no longer duty free. Some shops have got separate departments selling at different prices to passengers for EU and non-EU destinations. Other shops have abolished duty free sales of certain items which are sold at the same non-duty free price to all passengers, or they sell certain commodities only to non-EU passengers at duty free prices. ... Since the abolition of duty free trade the sales on ferries within the EU dropped by 44 per cent when comparing the year prior to and the year after the abolition. The corresponding figures for aircraft and airports are 34 per cent and 19 per cent, respectively. The impact on the sales of tobacco and alcohol has been particularly strong with a decline in sales of 56 per cent" (Christiansen & Smith, 2001, p. 29-30).

Although some of the main results expected in the studies turned out to be true, they still appear to be neither significant nor conclusive enough to maintain such a type of cross-border trade. Apart from its negligible macroeconomic importance on both EU and national levels, these empirical studies failed to adequately consider the following crucial aspects (Parsche et al. 1998):

- Most relevant empirical studies including those mentioned above suffer from methodological weakness. For instance, these studies solely took into account the duty free sales that occurred at the domestic outlets but neglected those tax free purchases made by domestic consumers at the foreign outlets in the EU. More precisely, the substituted sales of the domestic retailers after the abolition of the intra-EU duty free shopping should ideally be measured under the additional consideration of the duty free sales made by the domestic consumers abroad. In this case rather different effects would be estimated for the national economy of the individual EU countries.
- The rise of VAT and excise tax revenues led by the increase of the substituted domestic consumption in the normal retail sector could also provide the scope for decreasing income tax and social insurance contributions. It should be borne in mind that the existing difference of VAT and excise tax rates among the closely neighbouring EU Member States could also play a crucial role for determining consumer behaviour and stimulating the cross-border shopping activities in these countries. Certainly, the country with a lower tax rate would generally be better off in the price

competition.[10] The consideration of all these additional economic facts in the empirical analyses would certainly change the measured labour market effects of the abolition of the intra-EU duty free sales for the individual members (see also Danish Ministry of Taxation, 1997; NERA, 1997). In this context, some EU countries with higher VAT and excise tax rates have been forced to reduce them to a comparable level with that of others (Table a1 & a2 in appendix). Therefore, the harmonisation of indirect tax rates appears to be faster and better achieved in the EU Single Market without the intra-EU duty free shopping, although their complete equalisation is not a necessary condition for a single market, as the experience of the United States illustrates (Seely, 1999).

- The operators of duty free business have also had opportunities to limit the job replacement on the mesoeconomic level, which appears to be, however, insufficiently exploited until 1999. In spite of the abolition of the intra-EU duty free shopping, for example, large international EU airports (including those in Munich, Manchester and Vienna) are now gradually transforming to shopping centres that especially target the high-income traveller group. "These outlets allow retailers to monopolise the attention of those awaiting their flights ... These are people likely to spend money, such as holidaymakers in a spending mood, or business travellers needing to make last minute gift purchases" (Seely, 1999, p.24). Such shopping centres have long been common in the United States. The shops established at the European airports have recently achieved satisfactory sales records. Such a favourable business performance has further led to the expansion of the number of shops and continuously created new jobs there. Moreover, the so-called extra-EU duty free still prevails at present, which comprised around 30% of the total duty free sales in the EU in 1995. Such extra-EU tax free sales have gradually expanded in recent years (Christiansen & Smith, 2001).

[10] In the UK, for instance, the excise duty has recently been changed at a rate of ca. 0.7 ECU per litre on beer and 1.8 ECU per litre on wine. In France and Spain, the duty rate on beer is around 0.1 ECU, and 0.0 ECU on wine (Table a1 in appendix). Clearly such a variation in tax rates has provided a large incentive for British shoppers (and also smugglers) to purchase alcohol and tobacco abroad, and in some cases result it illegally when back in the UK. In 1998 the total smuggling has cost the Exchequer 1.22 billion British pound, whereas legal cross border shopping has cost 305 million British pound (Seely, 1999).

- One should not only emphasise the welfare losses caused by the abolition of the intra-EU duty free sales from the point view of the individual consumers,[11] which include the higher price for those 'former' duty free goods to be paid at normal retail shops, the increased travel fares, the reduction and/or changes of some travel routes, etc. Although it is difficult to quantify, significant welfare gains for the society are also expected from the reduced negative external effects. For instance, the decreased marine and air traffic will contribute to energy saving and environmental improvement, whereas the reduction of alcohol and tobacco consumption will generally enhance public health (see also Seely, 1999).[12] Furthermore, it should be noted that the EU-wide decrease in travel fares in the 1990s was more intensively triggered by deregulation measures and fierce competition in the transport sector.

Conclusion: Lessons of the Abolition of Intra-EU Duty Free Sales for Eastern European EU Candidates

In the final analysis the intensive political debates in the EU prior to the abolition of the intra-EU duty free shopping in 1999 were "Much ado about nothing!". We seldom hear of the economic or business consequences of this EU-wide resolution today. The major outcomes of this study are summarised below. They are derived from the different examinations on the economic, fiscal and industrial impacts of this event made in the study. These findings provide some helpful policy suggestions for Eastern European EU candidates for an efficient preparation of Single Market implementation.

- The origin principle has largely been applied to the cross-border shopping of private households in the EU since 1993. For instance, consumers pay VAT of the origin country. The intra-EU duty free shopping (of travellers by ship and aircraft) also belong to such types of cross-border trade. In a single market there should be no tax ex-

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[11] Especially the welfare losses appear to be significant for consumers from countries with high tax rates on alcohol like Ireland, UK and Denmark.

emption provided for a small share of citizens and its existence no longer guarantees the allocation neutrality. Those countries seeking membership should be prepared to fully implement the Single Market idea in their territories.

- The economic significance of intra-EU duty free shopping measured in relation to GDP, private consumption and total exports, etc. was rather negligible both at the EU and at the national level for Ireland and the UK, economies which were traditionally recognised to be strongly affected by this type of tax free sales before 1999. Therefore, it is likely that the consequences of abolishing duty free shopping for the Eastern European EU candidates will not be significant. Consequently, the biased lobbying campaign and related political discussion about the possible consequences of such cross-border trade must be carefully interpreted and should not be overvalued.
- Since the abolition of duty free in 1999 the sales made in different shopping outlets within the EU dropped rather significantly in the short-term, whereas tobacco and alcohol industries have particularly suffered. This outcome was expected. However, the initial estimation of 140,000 job losses caused by the abolition of intra-EU duty free shopping was exaggerated. Moreover, it is still unclear how such decreases in outlet sales would be directly transmitted to fare increases, as anticipated in many related studies. Probably some regional and structural measures would be necessary to support the modernisation and/or restructuring process of those strongly affected industries, including tourism. The full exploitation of comparative advantages (low labour costs, high-quality infrastructure, favourable location, etc.) and the creation of new products, services and markets are compulsory strategies to be adopted in order to overcome such challenges in a single market. Instead of looking for an extra transitional period in abolishing duty free sales (Kerem, 2001), such business adaptation and adjustment processes should have already started in the candidate countries. In this sense, it should also be positively assessed that a number of large international airports in the EU are now rapidly being transformed into high-class shopping centres. The Eastern European EU candidates have such large advantages in low labour

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[12] Excessive drinking or smoking is bad for people’s health, and, therefore, it is desirable to impose taxes in order to discourage them from drinking or smoking too much. Due to this reason, taxes on alcohol, tobacco, etc. have sometimes been labelled sin taxes (Christiansen & Smith, 2001).

costs, etc. Due to this reason it seems to be less plausible that many people will lose their work from the immediate abolition of duty free shopping.

- Due in part to the macroeconomic insignificance, the overall net fiscal impact of intra-EU duty free sales remains limited at the EU and national levels. Nevertheless, the existing differences of VAT and excise tax rates among the Member States could affect the so-called substituted cross-border shopping activities of individual consumers to a certain extent. Thus, it can be postulated that the abolition of such tax free purchasing opportunities would also contribute to EU indirect tax harmonisation.
- It is widely acknowledged that the existence of intra-EU duty free shopping possibilities for a rather small share of EU citizens puts the normal retail sector at a disadvantage. For this reason its abolition is also justified. Moreover, the welfare losses for those individuals caused by the price increases and reduced consumption of, for example, alcohol and tobacco products after the abolition should be compared to the social welfare gain led by the reduction of negative external effects such as health costs.

EU enlargement will cause a large number of problems which have to be solved by contracts or which need interim arrangements. Compared to many important macroeconomic and structural aspects, the current discussion about duty free shopping seems to be a minor issue. For this reason much political and/or economic attention should not be paid to this topic. Instead of trying to gain tax advantages which will distort competition in the Single Market, the Eastern Europe candidate countries should concentrate on their real advantages and prepare their overall economies for EU membership.

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Appendix

Table a1 Special excise taxes on alcohol products in the EU (beer, wine and spirits taxes expressed in ECU)

	Beer (1 litre of final product, 5% alcohol)	**Wine** (1 litre of final product, 10% alcohol)	**Spirits** (1 litre of final product, 40% alcohol)
Austria	0.18	0.00	2.96
Belgium	0.21	0.48	6.78
Denmark	0.45	0.92	14.93
Germany	0.10	0.00	5.32
Greece	0.15	0.00	3.84
Spain	0.09	0.00	2.82
Finland	1.48	2.96	20.89
France	0.13	0.03	5.86
UK	0.67	1.75	9.44
Ireland	1.06	2.73	11.08
Italy	0.17	0.00	2.43
Luxembourg	0.10	0.00	4.25
Netherlands	0.22	0.50	6.16
Portugal	0.14	0.00	3.28
Sweden	0.87	3.21	23.68

Source: European Commission, Excise Duty Tables. 01. 06. 1997, p. 6-14 and 53. 54 & 57; Calculation of the Ifo Institute for Economic Research, Munich. All calculations are made based on the standard tax rates. Special tax rates and discriminations e.g. for small firms are neglected. The exchange rate amounted to 1 ECU = 1.91892 DM in September 1996.

Table a2 Tobacco tax in the EU

	Consumer price for 1,000 cigarettes in the standard price class (ECU)	Total amount of tax incl. VAT (ECU)	Share of tobacco tax as % of consumer price (without VAT share)	Share of total tax as % of consumer price (incl. VAT and excise tax)
Austria	118.53	87.76	57.38	74.04
Belgium	129.61	96.33	56.97	74.33
Germany	133.02	93.59	57.32	70.36
Denmark	200.29	164.96	62.36	82.36
Greece	90.70	65.99	57.50	72.75
Spain	52.61	38.76	59.88	73.68
Finland	187.19	143.02	58.37	76.40
France	148.60	112.01	58.30	75.38
UK	191.38	150.67	63.84	78.73
Ireland	187.78	144.12	59.40	76.75
Italy	91.35	66.66	57.00	72.96
Luxembourg	93.15	63.96	57.95	68.67
Netherlands	106.87	76.83	57.00	71.89
Portugal	76.87	64.07	66.68	83.35
Sweden	218.72	158.72	52.56	72.56

Source: European Commission, Excise Duty Tables for 01. 06. 1997, p. 25 & 63. The minimum share of tobacco tax as % of the consumer price = 57% according to the EU resolution on 19. 10. 1992. The exchange rate amounted to 1 ECU = 1.91892 DM in September 1996.

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